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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/532,469

04/22/2005

Fabio Vignoli

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04/25/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

SAINT CYR, LEONARD

ART UNIT

PAPER NUMBER

2626

MAIL DATE

DELIVERY MODE

04/25/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/532,469	<b>Applicant(s)</b> VIGNOLI, FABIO	
	<b>Examiner</b> LEONARD SAINT CYR	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 01/17/08 have been fully considered but they are not persuasive.

Applicant argues that neither Kaufholz nor Schroder et al., teach the control of a beam forming module through the recognition of a predetermined keyword (Amendment, pages 5 – 9).

The examiner disagrees, Schroder et al., teach recognition of predetermined keyword by disclosing that “a voice command for switching on the device to be accepted from any first user and, after that, only voice command inputs from this first user to be acceptable” (col.2, lines 27 - 30), since only voice commands from the first user that are being recognized by the device. Kaufholz teaches controlling the beam forming module by disclosing that “The beam former may also select or even tract an audio source. Typically, the loudest source signal is identified” (col.5, lines 13 – 15). Thus, Schroder et al., in view of Kaufholz, teach all parts of the limitation.

### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1- 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schroder et al. (US Patent 7,136,817) in view of Kaufholz (US Patent 7,050,971).

Regarding claims 1 and 9, Schroder et al. discloses a speech control unit for controlling an apparatus on basis of speech, comprising:

a microphone array, comprising multiple microphones for receiving respective audio signals (see col. 4, lines 44-46); and

a speech recognition unit for creating an instruction for the apparatus based on recognized speech items of the speech signal (see col. 4, lines 60-62, where the commands are recognized speech items), comprising a keyword recognition system for recognition of a predetermined, keyword that is spoken by the user and which is represented by a particular audio signal and the speech control unit being arranged to control the beam forming module (see col. 4, lines 60-62, where the commands are the predetermined keywords spoken), on basis of the recognition of the predetermined keyword, in order to enhance second components of the audio signals which represent a subsequent utterance originating from a second orientation of the user relative to the microphone array (see col. 2, lines 38-44);

recognition of the predetermined keyword at the first orientation and the subsequent utterance at the second orientation (“a voice command for switching on the device to be accepted...microphone array comprising two or more microphones”; col.2, lines 27 – 30; col.4, lines 44 - 46),

Schroder et al. do not disclose a beam forming module for extracting a speech signal of a user; calibrates the beam forming module to allow the user from the first orientation to the second orientation. However this feature is well known in the art as indicated by Kaufholz. Kaufholz discloses a speech recognition apparatus that utilizes a beam former that creates a higher performance and resolution of the resulting microphone signal. The beam former may also select or even tract an audio source. Typically, the loudest source signal is identified (see col. 5, lines 8-15). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a beam forming module with the apparatus of Kaufholz for the benefit of a higher performance and resolution of the resulting microphone signal.

Regarding claim 2, Schroder et al. further disclose that the keyword recognition system is arranged to recognize the predetermined keyword that is spoken by another user and the speech control unit being arranged to control the beam forming module, on basis of this recognition, in order to enhance third components of the audio signals which represent another utterance originating from a third orientation of the other user relative to the microphone array (see col. 2, lines 35-44).

Regarding claim 3, Schroder et al. further disclose that a first one of the microphones of the microphone array is arranged to provide the particular audio signal to the keyword recognition system (see col. 4, lines 56-62).

Regarding claim 4, Schroder et al. further disclose that the beam forming module is arranged to determine a first position of the user relative to the microphone array (see col. 4, lines 51-56).

Regarding claim 5, Schroder et al. further disclose that an apparatus comprising: a speech control unit for controlling the apparatus on basis of speech as claimed in claim 1 (see col. 4, lines 60-62); and

processing means for execution of the instruction being created by the speech control unit (see col. 4, lines 60-62).

Regarding claim 6, Schroder et al. discloses an apparatus as claimed in claim 5, characterized in being arranged to show that the predetermined keyword has been recognized (see fig. 1, col. 3, lines 32-45).

Regarding claim 7, Schroder et al. discloses an apparatus as claimed in claim 6, characterized in comprising audio generating means for generating an audio signal in order to show that the predetermined keyword has been recognized (see fig. 1, col. 3, lines 32-45).

Regarding claim 8, Schroder et al. discloses a consumer electronics system comprising the apparatus as claimed in claim 5 (see col. 4, lines 63-65).

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD SAINT CYR whose telephone number is (571)272-4247. The examiner can normally be reached on Mon- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS

04/14/08

/Richemond Dorvil/  
Supervisory Patent Examiner, Art Unit 2626